DOCUMENT RESUME

ED 151 624 CG 012 202

AUTHOR Albino, Judith E.; Shuell, Thomas J.
TITLE Contextual Determinants of Achievement Responses in Men and Women.
PUB DATE Aug 77
NOTE 13p.; Paper presented at the Annual Convention of the American Psychological Association (San Francisco, California, August 26-30, 1977)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Achievement; College Students; *Environmental Influences; *Experimenter Characteristics; Males; *Motivation; Research Projects; *Sex Differences; *Success Factors

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ED151624

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Judith E. Albino and Thomas J. Shuell

State University of New York at Buffalo

* Paper presented at the annual meeting of the American Psychological Association, San Francisco, California, August, 1977.

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Judith E. Albino and Thomas J. Shuell
State University of New York at Buffalo

ABSTRACT

Picture stimuli depicting females and males working together were shown to college students by either a male or female experimenter. Subjects' responses to the pictures were assessed using standard need achievement scoring. A significant interaction was obtained between sex of subject and sex of experimenter, such that higher need achievement scores were obtained by males when the experimenter was male. A categorical analysis of achievement attributions in responses revealed no differences in achievement roles and levels ascribed to female or male stimulus figures, although both male and female students ascribed higher occupational status to males than to females

Contextual Determinants of Achievement Responses

In Men and Women

Judith E. Albino and Thomas J. Shuell
State University of New York at Buffalo

Differences between the responses of females and males were observed early in the research on achievement motivation. Veroff, Wilcox, and Atkinson (1953) found that need achievement scores of males increased when achievement-arousal instructions were used while scores of females were uniformly high under arousal and neutral conditions. Such differences were largely ignored, however, and most investigators limited their research to male subjects. More recently, sex differences have been recognized as important in their own right, and interest in female achievement motivation has accelerated.

In her landmark study, Horner (1968) suggested that since our society is generally disapproving of female achievement strivings, women may actually seek to avoid success. The many studies stimulated by Horner's thesis, however, have produced inconsistent results and, at best, only mixed evidence for the existence of a uniquely defined motive to avoid success. (See Alper, 1974 and Tresemer, 1976 for reviews of this work.)

In a recent review focusing on the conceptual and measurement problems associated with the work on female achievement needs, Shaver (1976) suggested that Atkinson's resultant model of achievement motivation (Atkinson, 1964; Atkinson and Feather, 1966) might be expanded to accommodate newer views of achievement-related motives. He proposed further that priority should be given to studying the relationships between earlier measures of need for achievement and the new measures of motive to avoid success.

The current study attempts to further explore sex differences in achievement-related responses and to expand earlier concepts and techniques for assessing achievement needs through use of an innovative approach to eliciting and scoring need achievement responses to picture cues. The primary purpose of the work was to determine whether sex differences in achievement imagery would occur when picture stimulus cues suggested the equal probability of success for a female and a male. In addition, the effect of the sex of experimenter on achievement responses of female and male subjects was examined.

Method

Subjects

The study sample consisted of 92 female and 32 male students in an introductory psychology course. All subjects were full time students at a private coeducational college which enrolls 2,600 students in the undergraduate programs. Students in each of five course sections were assigned alternately from the class rosters to either a female or male experimenter. Assignment was carried out separately for male and female students.

Materials and Procedures

The two experimenters, a female and a male psychologist, were of approximately the same age, and had no previous acquaintance with any of the subjects. Following introduction of the experimenters as research psychologists from the nearby state university, the subjects were asked to go to an adjoining classroom with the experimenter to whom they were assigned. Standard procedures for administering the Thematic Apperception Test (TAT) for need achievement under neutral conditions were used. The test was introduced as a measure of creative imagination; subjects were given twenty seconds to view each of five pictures; four questions were presented to guide the construction of stories, and five minutes were allowed for writing a story in response to each picture stimulus.

Five photographs, each showing a male and a female of approximately the same age and status in a work situation, were produced for this study and used in place of the pictures usually presented for need achievement testing. The pictures were carefully composed to insure that the female and male figures were perceived as carrying out the same tasks and having comparable roles. One picture showed two persons in a laboratory setting; a second showed two dental students at work on typodonts; the third showed two students studying in a library; the fourth showed two persons looking through microscopes; and a fifth showed two persons at desks in a bank. For purposes of this study, responses to the pictures taken in the bank were excluded since there was a background-foreground discrepancy for the two stimulus figures and one sat at an executive style desk while the other sat at a secretarial desk. In all other pictures, however, great care had been taken to insure that there were no clues to suggest unequal status of the two stimulus figures. The order in which the pictures were projected for viewing was randomized for the ten testing sessions.

Scoring

The subjects' stories about the pictures were scored for need achievement in the standard manner described by McClelland, Atkinson, Clarke, and Lowell (1958). A test of reliability produced an interrater correlation of .80 for the three scores. In addition, three categorical scores were obtained: (a) Achievement Role, reflecting whether achievement strivings were attributed to the female or male stimulus figure, or equally to both figures; (b) Achievement Level, reflecting whether a higher level of achievement was attributed to the male or female figure, or whether equal levels of achievement were attributed; and (c) Occupational Status, reflecting whether higher occupational status was attributed to the male or female figure, or whether equal status was attributed to the two figures. Percentages of interrater agreement for three categories were .86, .77, and .91, respectively.

Results

Two independent variables were used in the analyses: sex of the subject and sex of the experimenter. Dependent variables were need achievement scores and number of attributions of achievement to female, male, or both stimulus figures, as described in the three categories listed above.

The mean need achievement scores summed across all four stimulus pictures for each of the four treatment groups are presented in Table 1. Achievement imagery was reflected in 56 percent of the stories written by female subjects and in 55 percent of those written by male subjects. An analysis of variance of the need achievement scores revealed no statistically significant main effects. However, a significant interaction was found between sex of the experimenter and sex of the subject, $F\ (1,120) = 4.58$, $p < .05$. The greatest difference involved in this interaction appears to be between the scores of males working under a male experimenter who achieved a mean score of 9.56, and males working under a female experimenter, who achieved a mean score of 5.69. While the scores of female subjects were higher when the experimenter was female (8.35) than male (7.93), this difference was much smaller.

Insert Table 1 about here

When the three additional scoring categories were applied to subjects' stories tabulations revealed that the vast majority of subjects attributed equal achievement strivings to the male and female stimulus figures. As shown in Table 2, relatively small percentages

of both male and female subjects responded differentially to the two stimulus figures.

Insert Table 2 about here

The Occupational Status category did reveal higher status attributions to male than to female stimulus figures. In fact, only two stories out of 274 included attribution of higher occupational status to a female, while 16 included such attributions to a male. As Table 3 indicates, moreover, no attributions of higher occupational status were made to a female by subjects--either male or female--working under a female experimenter.

Insert Table 3 about here

The breakdown of categorical scores on Achievement Role, Achievement Level, and Occupational Status by sex of subject and sex of experimenter also indicates an interesting pattern for the rate of "equality" responses given by males in the two experimenter conditions. In each of these categories, 16 to 18 percent more stories indicating equal responses to male and female stimulus figures were written by male subjects working under a male experimenter than by male subjects working under a female experimenter. While female subjects, on the other hand, told slightly more of these "equality" stories when the experimenter was female, this difference was much smaller than that just described for males.

Discussion and Conclusions

Analyses of the data indicated no differences in the need achievement scores attained by male and female subjects. Furthermore, when the students--both male and female--wrote stories containing achievement imagery, they generally were willing to attribute achievement strivings and success to both males and females. These findings might at first appear to be inconsistent with the notion, supported widely both by popular theory and by research, that achievement strivings are generally seen as more appropriate to the male role. Rather than rejecting that line of thinking completely, however, it is suggested here that the specially posed pictures used in this study elicit similar responses from males and females because of their value as symbolic models. This interpretation would also be supportive of Lockheed's (1975) report in which she suggested that when achievement is not viewed as a deviation

from acceptable behavior, females will express achievement motivation in a manner similar to that of males. By showing a man and a woman working together, the picture stimuli may have provided a context of equality that would be rejected only by those with very strong, internalized biases against equality of the sexes. As the data show, very few subjects revealed such biases.

If we accept this explanation of the results, however, we have an apparent paradox in the fact that the need achievement scores of males were higher when the experimenter was male. It appears, therefore, that the presence in the testing situation of the male experimenter--but not the female experimenter--may create an achievement arousal situation for most males. This pattern of sex differences would then be recognizable as similar to that reported in the earlier research of Veroff, Wilcox, and Atkinson (1953), in which need achievement scores of males, but not females, were increased in response to experimental arousal conditions stressing leadership and intelligence. We might assume that the presence of a male experimenter establishes a setting of competition to which males respond. This explanation does not, however, shed any light on the question of why the scores of females are not raised comparably in a setting where a female experimenter could be viewed as setting an appropriate context for female achievement.

The scores obtained on the three categorical indices, Achievement Role, Achievement Level, and Occupational Status, moreover, added nothing of significance to the picture of sex differences in achievement need which is produced by examination of the motive scores. The tendency for both males and females to more frequently attribute higher occupational status to males than to females may be viewed quite simply as a reflection of what subjects see in the world around them, particularly since this same pattern was not reflected in the Achievement Role or Achievement Level attributions. An alternative explanation, of course, is that achievement is seen as "all right" for females, so long as they remain subordinate in status to their male co-workers. One might interpret the differences in percentages of "equality" responses given by males in the two experimenter conditions along similar lines. That is, perhaps males view equality for the sexes in achievement and occupational status as acceptable so long as a male remains "in charge." For women, on the other hand, it may be that such equality is more readily expressed when a female role model establishes the acceptability of that response.

At this point, however, the interpretations offered must remain speculation for the research appears to raise more questions than it answers. It is our intention, however, to explore more fully the issue of experimenter effects through an attempt to replicate the results obtained here. It appears that a powerful influence on the results obtained in a number of studies of achievement responses may have been overlooked in the failure to control for sex of the experimenter.

In addition, further study is needed of the assessment approach suggested here. Comparisons need to be made both with need achievement responses obtained using standard pictures stimuli and with scores obtained on measures of the motive to avoid success. Clearly, the categorical scoring technique suggested for this measure might be expanded. In particular, the content of many of the stories generated in this study suggests that an analysis of the personal relationships described, as well as the working relationships, might serve to further clarify differences in the need achievement responses of men and women.

References

Alper, T. B. Achievement motivation in college women. American Psychologist, 1974, 29, 194-203.

Atkinson, J. W. An introduction to motivation. Princeton: Van Nostrand, 1964.

Atkinson, J. W. & Feather, N. T. (Eds.). A theory of achievement motivation. New York: Wiley, 1966.

Horner, M. S. Sex differences in achievement motivation and performance in competitive and non-competitive situations. Unpublished doctoral dissertation, University of Michigan, 1968.

Lockheed, M. E. Female motive to avoid success: A psychological barrier or a response to deviancy? Sex Roles, 1975, 1, 1, 41-50.

McClelland, D. C., Atkinson, J. W., Clark, R. A. & Lowell, E. L. A scoring manual for the achievement motive. In J. W. Atkinson (Ed.) Motives in Fantasy, Action, and Society. New York: Van Nostrand, 1958.

Shaver, P. Questions concerning fear of success and its conceptual relatives. Sex Roles, 1976, 2, 3, 305-320.

Tresemer, D. The cumulative record of research on "fear of success". Sex Roles, 1976, 2, 3, 217-236.

Veroff, J., Wilcox, S. & Atkinson, J. W. The achievement motive in high school and college age women. Journal of Abnormal and Social Psychology, 1953, 48, 108-119.

Table 1

Mean Need Achievement Scores Attained
by Female and Male Subjects

	Female Experimenter	Male Experimenter	Total
Female Subjects	8.35	7.93	8.30
Male Subjects	5.69	9.56	7.63
Total	7.66	8.35	

Table 2

Percentage of Achievement-Related Responses
Elicited by Male and Female Stimulus Figures

	Higher Responses to Female	Higher Responses to Male	Equal Responses to Female and Male
Achievement Role	3.23	4.34	47.38
Achievement Level	6.50	4.27	39.63
Occupational Status	0.60	5.65	48.59

Table 3

Percentages of Achievement-Related Responses Elicited by Male and Female Stimulus Figures (Four Subject Groups)

	Higher Responses to Female		Higher Responses to Male		Equal Responses to Female and Male	
	Fem S	Male S	Fem S	Male S	Fem S	Male S
ACHIEVEMENT ROLE						
Female E	3.26	0.00	3.80	3.13	48.91	40.63
Male E	4.89	1.56	5.37	6.25	44.02	59.38
ACHIEVEMENT LEVEL						
Female E	5.98	4.69	3.80	4.69	41.85	32.81
Male E	7.07	8.33	4.34	5.00	36.96	48.33
OCCUPATIONAL STATUS						
Female E	0.00	0.00	5.98	1.56	49.46	40.63
Male E	0.54	3.13	7.61	3.13	47.28	57.81